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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Revision of the Commission's Rules  
to Ensure Compatibility with Enhanced  
911 Emergency Calling Systems

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CC Docket No. 94-102

To: Wireless Telecommunications Bureau

CELLULAR PHONE OF KENTUCKY, INC.'S  
PETITION FOR LIMITED WAIVER  
OF SECTION 20.18(g) OF THE COMMISSION'S RULES

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## **I. INTRODUCTION & SUMMARY**

CPK is the licensee of Station KNKN965 on the B1 Block portion of the Kentucky 6 – Madison 1 RSA. As a rural carrier, CPK provides cellular service to consumers in the state of Kentucky. It is a truly ‘small’ wireless carrier, with a system consisting of 6 cell sites. The system covers three sparsely populated counties, the largest of which has a population of little more than 56,500, and the smallest has fewer than 15,600 people, totaling approximately 122,300 people (far fewer than the 500,000 customer cut-off for Tier III carriers). By way of comparison, most Metropolitan Statistical Areas and many Rural Service Areas have single cities that have greater populations than all of CPK’s three counties combined.

CPK is committed to public safety and roll-out of E911; its goal is to provide ubiquitous availability of reliable, enhanced public safety to its customers. CPK is also committed to delivering E911 to its customers expeditiously, accurately and cost effectively.

CPK interacts with 3 public safety answering points (“PSAPs”) throughout the three counties included in its service area. These PSAPs are small entities that are not yet capable of deploying Phase II E911 service. Indeed, to date, CPK has received no PSAP requests for Phase II E911 service. Thus, even if CPK had been capable of meeting the October 1, 2001 deadline for deploying location-capable handsets, none of its customers would have received the service due to a lack of PSAP readiness.

On November 9, 2000, CPK reported to the Commission its intent to test and implement a handset-based automatic location information (“ALI”) solution for reaching Phase II E911 compliance, as required by the then-applicable E911 deployment schedule.<sup>3</sup> Unfortunately, however, it soon became evident that small carriers like CPK would not be able to meet the Commission’s E911 Phase II implementation deadlines. Simply put, the handset and network

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<sup>3</sup> See Cellular Phone of Kentucky, Inc. Report on Enhanced 911 Phase II Implementation, CC Docket No. 94-102 (Nov. 9, 2000) (“*CPK E911 Report*”); 47 C.F.R. §§ 20.18(g), 20.18(i).

equipment the carriers needed to satisfy the Commission's requirements would not be available to the small carriers in sufficient time to meet the deployment deadlines. To that end, numerous non-nationwide wireless providers filed petitions seeking additional time to comply with the Commission's E911 Phase II rules, pursuant to a Public Notice released on October 12, 2001.<sup>4</sup> CPK erred in not filing a request for relief at that time.

On July 26, 2002, the Commission released its *Stay Order*, temporarily staying the application of certain E911 Phase II deadlines set forth in Sections 20.18(f) and (g) to two classes of non-nationwide CMRS providers.<sup>5</sup> In that order, the Commission recognized that small-sized carriers would be unable to meet the Commission's aggressive schedule for implementing Phase II E911.<sup>6</sup> The Commission also found that a "temporary stay of the initial and interim Phase II deadlines is consistent with the public interest because it allows for a more efficient rollout of E911."<sup>7</sup> The Commission, therefore, granted a 7-month stay of the compliance deadline for medium-sized, or "Tier II," carriers, and a 13-month stay for small, or "Tier III," carriers, such as CPK.<sup>8</sup> Despite its broad findings and action, the Commission limited the application of the *Stay Order* to carriers who filed requests for relief from the E911 Phase II rules.<sup>9</sup>

On July 30, 2002, the Commission's Enforcement Bureau sent a letter to CPK asking for information on whether CPK "is in compliance with the Enhanced 911 ("E911") Phase II rules." On August 28, 2002, CPK submitted the declaration of Kelly Ramsey, responding to the Bureau's questions and pledging to file the instant petition for waiver within 30 days.

CPK has been working diligently to satisfy its E911 obligations. Recently, CPK

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<sup>4</sup> "Commission Establishes Schedule for E911 Phase II Requests by Small and Mid-Sized Wireless Carriers," Public Notice, FCC 01-302 (rel. Oct. 12, 2001).

<sup>5</sup> *Stay Order*, 17 FCC Rcd. 14841.

<sup>6</sup> *Id.* at ¶ 11.

<sup>7</sup> *Id.* at ¶ 16.

<sup>8</sup> *Id.* The Commission established two tiers of carriers covered by the *Stay Order*; "Tier II" carriers, carriers with over 500,000 subscribers by the end of 2001, and "Tier III" carriers, carriers satisfying a "small business" standard approved by the Small Business Administration. *Id.* at ¶ 25.

<sup>9</sup> *Id.* at 17 FCC Rcd. 14841 at ¶ 10, fn. 21.

executed a binding contract with a service provisioning company to assist in providing E911 services. Even though CPK continues its E911 efforts, meeting the Commission's benchmarks is not possible at this time. CPK, therefore, respectfully requests that the Commission grant a limited waiver of Section 20.18(g) to extend CPK's Phase II E911 deployment deadlines to be the same as the extended deadlines established for other Tier III carriers.

## II. GOOD CAUSE EXISTS FOR GRANT OF A LIMITED WAIVER

Section 20.18(g) permits carriers electing to utilize a handset-based solution to phase-in of Phase II E911 service subject to certain requirements.<sup>10</sup> Section 20.18(g)(1) sets forth certain phase-in deadlines which are applicable "[w]ithout respect to any PSAP request."<sup>11</sup> Section 20.18(g)(2) sets forth additional deadlines which are applicable "[o]nce a PSAP request is received."<sup>12</sup> CPK is requesting a limited waiver of Sections 20.18(g)(1) and (g)(2) to extend its deployment deadlines to be the same as the extended dates established in the *Stay Order*.<sup>13</sup>

The FCC may waive its rules for good cause shown.<sup>14</sup> The FCC may also grant a request for waiver where it is shown that unique or unusual factual circumstances would render application of the rules inequitable, unduly burdensome or contrary to the public interest.<sup>15</sup> Further, in the specific context of the E911 rules, the Commission has found that there may be some instances where petitions for waiver of the Phase II E911 rules would be necessary, particularly if there are "technological issues" or "exceptional circumstances" which are

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<sup>10</sup> 47 C.F.R. § 20.18(g).

<sup>11</sup> *Id.* § 20.18(g)(1).

<sup>12</sup> *Id.* § 20.18(g)(2).

<sup>13</sup> The specific deadlines are as follows:

Without respect to any PSAP request for deployment of Phase II 911 enhanced service, the licensee shall:

- i. Begin selling and activating location-capable handsets no later than **September 1, 2003**;
- ii. Ensure that at least 25 percent of all new handsets activated are location-capable no later than **November 30, 2003**;
- iii. Ensure that at least 50 percent of all new handsets are location-capable no later than **May 31, 2004**;
- iv. Ensure that 100 percent of all new digital handsets activated are location-capable no later than **November 30, 2004**; and
- v. Ensure that penetration of location-capable handsets among its subscribers reaches 95 percent no later than **December 31, 2005**.

<sup>14</sup> 47 C.F.R. § 1.3.

<sup>15</sup> 47 C.F.R. § 1.925 (b)(3)(ii); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969) *cert. denied*, 409 U.S. 1027 (1972).

preventing the deployment of such services.<sup>16</sup> CPK's request for limited waiver meets these standards.

In particular, CPK submits that the underlying purpose of the rules will not be frustrated by a grant of the requested waiver. As noted above, none of the PSAPs in CPK's territory have requested Phase II E911 service. Thus, an extension of the compliance deadline will not delay roll-out of E911 in CPK's markets.

Furthermore, CPK notes that the Commission has already determined that a limited waiver of the Phase II E911 implementation deadlines for small and mid-sized carriers is in the public interest.

We find that small and mid-sized carriers have a legitimate need for a stay of the initial Phase II implementation deadlines. Based on this record we conclude that handset vendors and network-based location technology vendors give priority to the larger, nationwide carriers. Nationwide carriers' deployment schedules have created downstream delays for Tier II and III carriers. We find that there are temporary and special circumstances applicable to the carriers identified herein that constitute a sufficient basis to grant a stay on a limited and temporary basis from our Phase II deadlines.<sup>17</sup>

As discussed below, CPK has the same legitimate need for a waiver of the initial Phase II implementation deadlines as that recognized for other Tier III carriers. CPK is, by any definition, a small carrier and meets the Commission's definition of a Tier III carrier. Further, like almost all other small and mid-sized carriers, CPK's efforts to meet the Commission's E911 Phase II deployment schedule faced almost insurmountable obstacles resulting from the handset and network vendors' focus on serving the large nationwide carriers. Consequently, CPK is seeking nothing more, and nothing less, than the relief granted other Tier III carriers in the *Stay Order*.

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<sup>16</sup> *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 15 FCC Rcd. 17442 ¶ 42 (2000) ("*Fourth MO&O*").

<sup>17</sup> *Stay Order*, 17 FCC Rcd. 14841 at ¶ 11.

**A. Technological Issues and Exceptional Circumstances Warrant Grant of a Limited Waiver of Section 20.18(g)(1)**

CPK's plans and schedule for deploying the handset location solution in its market are necessarily dependant upon the progress made by the equipment vendors in the manufacture and distribution of the necessary equipment, including handsets and network elements. CPK faces additional obstacles to becoming Phase II E911 compliant because it operates on a Time Division Multiple Access ("TDMA") system.

As numerous filings before the Commission have made clear, Phase II E911 options available to TDMA networks are very limited, especially in rural areas such as those served by CPK.<sup>18</sup> As the Commission is fully aware, "virtually all major cellular infrastructure providers . . . plan[ ] to cease development of new features and functionalities for their TDMA infrastructure equipment."<sup>19</sup> Network-based solutions are also problematic for rural TDMA carriers such as CPK.<sup>20</sup> Several large TDMA carriers, with predominantly urban service areas, have chosen the Mobile Assisted Network Location System ("MNLS") technology for complying with Phase II E911 service obligations.<sup>21</sup> It is CPK's understanding, however, that this technology is not suited to rural service areas. AT&T has informed the Commission that "MNLS will not satisfy the Commission's location accuracy requirements for network-based technologies."<sup>22</sup>

Similarly, CPK's network, which serves predominantly rural areas where there is a wider geographic dispersion of cell sites, is generally not well suited to a "pure" network-based

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<sup>18</sup> *AT&T Wireless Services, Inc. Request for Waiver of the E911 Phase II Location Technology Implementation Rules*, AT&T Wireless Services, Inc., April 4, 2001 ("AT&T Waiver Petition"); *Centennial Communications Corp. Amended Report on E911 Deployment Requirements*, Centennial Communications Corp., September 9, 2002 at 2; *Amended Petition for Temporary Waiver of the E911 Phase II Enhanced Wireless Service*, Rural Cellular Corporation, April 18, 2002, at 3 ("RCC Waiver Petition"); *United States Cellular Corporation Petition for Waiver of Sections 20.18(e) and (g) of the Commission's Rules*, United States Cellular Corporation, September 10, 2001, at 14 ("USCC Waiver Petition").

<sup>19</sup> *Wireless Telecommunications Bureau Seeks Comment on Petitions for Temporary Waiver of Deadline by Which Digital Wireless Systems Must Be Capable of Transmitting Calls from TTY Devices*, Public Notice, DA 02-640 (rel. March 19, 2002).

<sup>20</sup> Indeed, the Commission has expressly recognized that a handset-based solution is the most viable solution for carriers serving rural markets. *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 14 FCC Rcd 17388, 17390-91 (1999).

<sup>21</sup> *AT&T Waiver Petition*, at 3-4; *USCC Waiver Petition* at 15.

<sup>22</sup> *AT&T Waiver Petition*, at 4.

technology, such as Time Difference of Arrival (“TDOA”) and Angle of Arrival (“AOA”). These technologies require the triangulation of a signal between a systems’ cell sites. CPK’s network, however, utilizes very few cell sites widely dispersed across its service area, making such triangulation difficult, if not impossible. Further, CPK’s subscriber base is also widely dispersed, making the TDOA and AOA solutions less practical and potentially more costly and time-consuming to implement.<sup>23</sup>

TDMA operators are not faring any better with handset vendors. CPK sells Nokia and Motorola handsets. CPK’s vendors for Nokia and Motorola equipment have informed CPK that they have no plans to make location capable handsets available for TDMA systems. CPK has become aware of a TDMA product offered by Airbiquity, Inc. that is purportedly E911 Phase II compliant.<sup>24</sup> It appears that the Airbiquity product is a GPS-enabled accessory designed to retrofit to certain Nokia handsets and can be used on TDMA networks to allow the subscriber to transmit GPS-generated location information through the wireless network to the PSAP.<sup>25</sup> Edge Wireless LLC announced its launch of this product on May 30, 2002.

It is unclear at this early stage, however, whether this solution will be effective for CPK. First, the solution is limited to Nokia handsets and CPK sells significant numbers of both Nokia and Motorola equipment. Second, even Edge Wireless is not relying completely on the Airbiquity, Inc. solution. Indeed, trade press quotes Edge Wireless representatives as admitting that the attachment “isn’t an ‘elegant solution.’”<sup>26</sup> Further, it appears that Edge Wireless will not be rolling-out the Airbiquity accessory in any market but Oregon, and is “hedging its bet” by

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<sup>23</sup> In this regard, CPK notes that Rural Cellular Corporation has proposed to use combined AOA and TDOA technologies, but projects the upgrades will cost *between 10 and 20 million dollars*, not including operational costs. *RCC Waiver Petition*, at 4 (emphasis supplied).

<sup>24</sup> See Letter from Paul C. Besozzi, Patton Boggs LLP to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau dated June 14, 2002.

<sup>25</sup> *Id.*

<sup>26</sup> Marek, Sue, “Creating Rural E911 Solutions,” *Wireless Week* (June 13, 2002).

overlaying its TDMA network outside of Oregon with GSM/GPRS technology.<sup>27</sup>

CPK remains committed to finding a solution for Phase II E911 compliance for its TDMA system and continues to explore options for Phase II E911 compliance. However, without immediate access to Phase II E911 capable handsets, CPK remains incapable of satisfying the existing penetration benchmarks in the Commission's rules. CPK, therefore, respectfully requests a limited waiver of Section 20.18(g)(1) extending the implementation deadlines to the deadlines established in the Commission's *Stay Order*.

**B. Waiver of Section 20.18(g)(2) is Also Warranted**

CPK also requests a limited waiver of Section 20.18(g)(2) of the Commission's rules to extend its deployment deadlines to the deadlines adopted for Tier III carriers in the *Stay Order*. As noted above, Section 20.18(g)(2) governs once a carrier receives a PSAP request for Phase II E911 service. Again, CPK has received no requests from any PSAP for Phase II E911, but nevertheless requires a limited waiver of this rule.

CPK uses a Nortel switch and relies upon Nortel Networks ("Nortel") as its vendor for obtaining Phase II E911 compliant software loads. As the Commission has stated, however, "virtually all major cellular infrastructure providers, *including Nortel*. . . plan[ ] to cease development of new features and functionalities for their TDMA infrastructure equipment."<sup>28</sup> Nevertheless, CPK is continuing to work to obtain a solution that is Phase II E911 compliant as quickly as possible, but cannot project when, or if, such a feat is possible in a TDMA environment.

In addition to securing the necessary software, CPK must make significant hardware upgrades to its switch in order to become Phase II E911 compliant. Again, Nortel has provided no assurances to CPK as to when, or if, the necessary hardware will be available.

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<sup>27</sup> *Id.*

<sup>28</sup> *Wireless Telecommunications Bureau Seeks Comment on Petitions for Temporary Waiver of Deadline by Which Digital Wireless Systems Must Be Capable of Transmitting Calls from TTY Devices*, Public Notice, DA 02-640 (rel. March 19, 2002) (*emphasis added*).



Furthermore, once the software and hardware upgrades are in place, CPK must still test the equipment and software on its network. Thus, CPK must both be able to obtain and test its switch upgrade prior to meeting the Commission's deadlines for Tier III carriers that once a PSAP request is received, CPK will meet its rule 20.18(g)(2) obligations "within six months or by **September 1, 2003**, whichever is later." More important, however, even if the switch is made Phase II E911 compliant, CPK will not immediately be able to meet (g)(2) because, as discussed above, its customers will have no ALI capable handsets. Consequently, CPK may be unable to begin "delivering" Phase II E911 service to PSAPs within the timeframe set in Section 20.18(g)(2). Accordingly, CPK requests that its Section 20.18(g)(2) deadline be extended to the deadline set in the *Stay Order*.

**C. The Requested Limited Waiver Will Serve the Public Interest**

CPK supports the Commission's goals to improve public safety and extend ALI to wireless callers. CPK agrees that wireless phones can be a vital, life-saving way to call for assistance in emergency situations. Further, Phase II E911 services will enable emergency response teams to operate more efficiently because ALI can be applied to route these calls to the proper PSAP and provide emergency service providers with far better location information.

As the Commission has recognized, however, the temporary and limited waiver of the Phase II E911 rules sought herein and granted in the *Stay Order* will not unduly delay roll-out of Phase II E911. Indeed, such an extension of time is necessary "to minimize delay of deployment of E911."<sup>29</sup> As explained above, there are technical and equipment availability problems that prevent CPK from implementing E911 pursuant to the deadlines established in Section 20.18(g).

The *Stay Order* is designed to ease that problem by permitting manufacturers to create a three phased ALI rollout, and allowing the large nationwide carriers and their vendors to focus on implementing E911 in their markets first. It is CPK's belief that it, and the other small

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<sup>29</sup> *Stay Order*, 17 FCC Rcd. 14841 at ¶ 15.

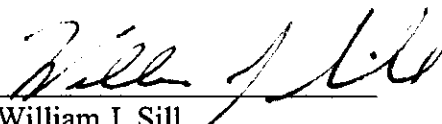
carriers, will learn from the deployment experiences of Tier 1 and Tier 2 carriers, which should make the roll-out in smaller markets more efficient. Further, CPK is requesting a limited waiver which will not interrupt its ongoing E911 deployment efforts. Thus, granting CPK a limited waiver subject to the terms of the *Stay Order* will serve the same public interest benefits served by the Commission's original *Stay Order*.

### CONCLUSION

For the forgoing reasons, CPK respectfully submits that its waiver request is in the public interest and should be granted. Further, CPK commits to keep the Commission abreast of its Phase II E911 progress, and, will submit an Interim Report by the August 1, 2003 deadline set forth in the *Stay Order*. At that time CPK will provide specific data as to the progress of its Phase II E911 implementation. CPK will also include in its Interim Report any information it has at that time regarding the level of its ALI accuracy and reliability.

Respectfully submitted,

CELLULAR PHONE OF KENTUCKY, INC.

By:   
William J. Sill  
J. Wade Lindsay

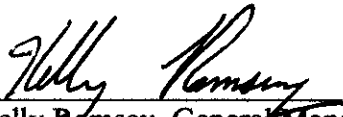
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## DECLARATION

I, Kelly Ramsey, being of legal age, do hereby state and declare as follows:

I am the General Manager and Vice President of Cellular Phone of Kentucky, Inc. I have reviewed the foregoing Petition for Waiver. I declare under penalty of perjury that the information presented in that document is true and correct to the best of my knowledge, information and belief. Executed on this 25<sup>th</sup> day of September, 2002.

FURTHER DECLARANT SAYETH NAUGHT

  
Kelly Ramsey, General Manager  
and Vice President  
Cellular Phone of Kentucky, Inc.